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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/858,271	05/15/2001	John Thomas Varga	IBMN.017US01(0515)	2681

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EXAMINER	
MENBERU, BENIYAM	
ART UNIT	**PAPER NUMBER**
2626	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/858,271	VARGA, JOHN THOMAS	
	Examiner	Art Unit	
	Beniyam Menberu	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 December 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9,11-24,26-30,37-42,44 and 45* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9,11-24,26-30,37-42,44 and 45* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Response to Arguments

1. Applicant's arguments, see Remarks, filed December 19, 2005, with respect to the rejection(s) of claim(s) 1, 4, 5, 6, 7, 8, 11, 17, 20, 21, 22, 23, 37, 39, 40, 41, and 42 under U.S. Patent No. 6049390 to Notredame et al have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of U.S. Patent No. 6292194 to Powell, III.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 4, 5, 6, 7, 8, 11, 17, 20, 21, 22, 23, 37, 39, 40, 41, and 42 rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6049390 to Notredame et al in view of U.S. Patent No. 6292194 to Powell, III.

Regarding claims 1, 17, and 37, Notredame et al disclose a system (column 14, lines 33-35; column 14, lines 62-65; column 24, lines 9-12) a method of merging display

items in an encoded format (column 7, lines 25-28), and a program (column 7, lines 43-45),

comprising:

providing, in the encoded format, a plurality of display items to be merged (column 7, lines 25-28);

examining the display items on the basis of item priority (column 17, lines 48-51, lines 58-64);

defining a target item having a target area (column 18, lines 45-47; lines 53-57); and

merging the display items in the target area according to item priority to produce the target item, the target item representative of the merged plurality of display items (column 7, lines 29-38;column 18, lines 53-57). However Notredame et al does not disclose aligning each of the display items relative to n-pixel boundaries within the target area.

Powel, III discloses aligning each of the display items relative to n-pixel boundaries within the target area (Figures 15A-C, Figures 16A-B; column 29, lines 65-67; column 30, lines 1-17, lines 58-67; colum 31, lines 1-40).

Notredame et al and Powel, III are combinable because they are in the similar problem area of image data encoding/decoding.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the aligning of display items to n-pixel boundaries of Powel, III with the system of Notredame et al to implement n-pixel alignment of merged display items.

The motivation to combine the reference is clear because Powel, III teaches that alignment is necessary before translation into screen space (column 30, lines 24-29).

Regarding claims 4, 20, and 39, Notredame et al in view of Powel, III teach all the limitations of claims 1, 17, and 37 respectively. Further Notredame et al disclose the method, system, and program, wherein examining the display items comprises examining a display item of highest priority and examining display items of lower priority to completely fill in the target item as a function of transparency of the highest priority display item (column 17, lines 48-63; column 18, lines 45-47; lines 53-57).

Regarding claims 5, 21, and 40, Notredame et al in view of Powel, III teach all the limitations of claims 1, 17, and 37 respectively. Further Notredame et al disclose the method, system, and program, wherein examining the display items comprises examining a display item of highest priority (overlaying display item) and examining underlying display items of lower priority at positions where control data of the overlaying display item indicates transparency (column 17, lines 48-55).

Regarding claims 6, 22, and 41, Notredame et al in view of Powel, III teach all the limitations of claims 1, 17, and 37 respectively. Further Notredame et al disclose the method, system, and program, wherein examining the display items comprises skipping data at particular locations of lower priority display items when corresponding locations of higher priority display items are non-transparent (column 37 lines 40-50; lines 65-67; column 38, lines 1-8).

Regarding claim 7, Notredame et al in view of Powel, III teach all the limitations of claim 1. Further Notredame et al discloses the method of claim 1, wherein merging the display items further comprises using transparency control data (column 20, lines 62-66) associated with the display items so that data associated with the display items is read only once (column 16, lines 26-34).

Regarding claims 8, 23, and 42, Notredame et al in view of Powel, III teach all the limitations of claims 1, 17, and 37 respectively. Further, Notredame et al disclose the method, system, and program, wherein the target area associated with the target item extends from a leftmost pixel of a leftmost display item to a rightmost pixel of a rightmost display item for the plurality of display items being merged (Figure 8, reference 803,805,807, 809, 815, X_1, X_{13}; column 36, lines 65-67; column 37, lines 1-9), the target area further comprising padding (column 37, lines 10-13).

Regarding claim 11, Notredame et al in view of Powel, III teach all the limitations of claim 1. Further Notredame et al disclose the method of claim 1, further comprising shifting data associated with a display item to be merged into a position within the target area to facilitate merging (column 30, lines 16-20).

3. Claims 2 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6049390 to Notredame et al in view of U.S. Patent No. 6292194 to Powell, III further in view of U.S. Patent No. 6526214 to Maertens.

Regarding claims 2 and 18, Notredame et al in view of Powel, III teach all the limitations of claims 1 and 17 respectively. However, Notredame et al does not disclose

the method and system of claims 1 and 17 respectively, wherein the encoded data associated with the display items to be merged comprises control data and color data.

Maertens discloses the encoded data associated with the display items to be merged comprising control data and color data (column 2, lines 6-8).

Notredame et al, Powel, III, and Maertens are combinable because they are in the similar problem area of image data encoding/decoding.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the control and color data of Maertens into the system of Notredame et al in view of Powel, III to implement merging of display items comprising of control and color component.

The motivation to combine the reference is clear because separate control and color data makes it convenient for the processing of encoded data.

4. Claims 3, 19, and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6049390 to Notredame et al in view of U.S. Patent No. 6292194 to Powell, III further in view of U.S. Patent No. 6526214 to Maertens further in view of U.S. Patent No. 6298164 to Suzuki et al.

Regarding claims 3, 19, and 38, Notredame et al in view of Powell, III further in view of Maertens teach all the limitations of claims 2, 18, and 37(limitations of claim 37 is taught by Notredame et al in view of Powell, III) respectively. Notredame et al in view of Powell, III further in view of Maertens disclose method, program, and system wherein control and color data comprising of end of block code (Notredame et al:

column 11, lines 47-52). However Notredame et al in view of Powell, III further in view of Maertens does not disclose the method, system, and program, wherein the control and color data comprises at least some of repeat data, pass-thru data, an end of scan code.

Suzuki et al disclose method wherein data comprises at least some of repeat data (column 6, lines 40-44), pass-thru data (column 6, lines 44-47), an end of scan code (column 6, lines 63-67).

Notredame et al, Powell, III, Maertens, and Suzuki et al are combinable because they are in the similar problem area of processing of encoded data.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the repeating/pass-thru data and end of scan code of Suzuki et al with the system of Notredame et al in view of Powell, III further in view of Maertens to implement an efficient merging of display items.

The motivation to combine the reference is clear because for run-length encoding the repeating/pass-thru data has to be identified (Notredame et al:column 35, lines 53-57).

5. Claims 9 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6049390 to Notredame et al in view of U.S. Patent No. 6292194 to Powell, III further in view of U.S. Patent No. 6078694 to Takahashi et al.

Regarding claims 9 and 24, Notredame et al in view of Powell, III teach all the limitations of claims 1 and 17 respectively. Further Notredame et al disclose the method

and system, wherein the display items being merged comprise of a region defined by mid-object pixels (Figure 8, reference X_1 to X_{13}) but Notredame et al does not disclose 4 additional ranges comprising left padding of multiples of n pixels, a transition defined across n pixels from the padding to the display item to be merged, a transition defined across n pixels from the display item to be merged to right padding, and right padding of multiples of n pixels.

Takahashi et al disclose the method of claim 1, wherein the display items being merged comprising of ranges within the target area (column 10, lines 43-45), the ranges comprising left padding of multiples of n pixels (column 10, lines 45-47, lines 50-54; column 15, lines 29-37), a transition defined across n pixels from the padding to the display item to be merged (column 10, lines 60-62; column 11, lines 1-10), a transition defined across n pixels from the display item to be merged to right padding (column 10, lines 60-62; column 11, lines 1-10), and right padding of multiples of n pixels(column 10, lines 45-47, lines 50-54; column 15, lines 29-37).

Notredame et al, Powell, III, and Takahashi et al are combinable because they are in the similar problem area of processing of encoded/coded image data.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the division of block area into multiple regions and padding as taught by Takahashi et al with the system of Notredame et al in view of Powell, III to implement a merging system with padding function.

The motivation to combine the reference is clear because padding is necessary for the boundary regions where there are no useful data as taught by Takahashi et al

(column 2, lines 64-67). Further Takahashi et al disclose the need to divide the region for the purpose of padding (column 10, lines 43-47).

6. Claims 12, 13, 15, 16, 26, 27, 29, 30, 44, and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6049390 to Notredame et al in view of U.S. Patent No. 6292194 to Powell, III further in view of U.S. Patent No. 5710719 to Houle.

Regarding claims 12, 26, and 44, Notredame et al in view of Powell, III teach all the limitations of claims 1, 17, and 37 respectively. Notredame et al disclose a method, system, and program wherein display items are first decompressed before merging (column 34, lines 9-15). However Notredame et al in view of Powell, III does not disclose the method, system, and program, further comprising producing tokens using the encoded data associated with the display items to be merged, wherein merging the display items further comprises merging the display items using the tokens.

Houle discloses a method of producing tokens using the encoded data associated with the display items (column 5, lines 16-20, lines 26-29) in order to decompress the image.

Notredame et al, Powell, III, and Houle are combinable because they are in the similar problem area of image data encoding/decoding.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the token method taught by Houle in the system of Notredame

et al in view of Powell, III to implement the decompressing of compressed image data used for merging.

The motivation to combine the reference is clear because tokens are necessary to decompress data (Houle: column 5, lines 26-29).

Regarding claims 13, 27, and 45, Notredame et al in view of Powell, III further in view of Houle teach all the limitations of claims 12, 26, and 44. Further Houle discloses the method, system, and program, wherein the tokens represent counts of repeated data or pointers to pass-thru data associated with the display items to be merged (column 4, lines 54-58; column 5, lines 6-9).

Regarding claims 15 and 29, Notredame et al in view of Powell, III further in view of Houle teach all the limitations of claims 12 and 26 respectively. Further Houle disclose the method and system, wherein the tokens are produced by decoding the encoded data associated with the display items to be merged (column 5, lines 20-23, lines 26-29).

Regarding claims 16 and 30, Notredame et al in view of Powell, III further in view of Houle teach all the limitations of claims 15 and 29 respectively. Further, Notredame et al in view of Powell, III further in view of Houle disclose the method and system, further comprising re-compressing the tokens associated with the target item into the encoded format (Notredame et al: column 34, lines 13-16; Houle: column 4, lines 17-26).

7. Claims 14 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6049390 to Notredame et al in view of U.S. Patent No. 6292194 to Powell, III further in view of U.S. Patent No. 5710719 to Houle further in view of U.S. Patent No. 6006013 to Rumph et al.

Regarding claims 14 and 28, Notredame et al in view of Powell, III further in view of Houle teach all the limitations of claims 12 and 26 respectively. However Notredame et al in view of Powell, III further in view of Houle does not disclose the method and system, wherein the display items are prioritized to define an arrangement of overlaying display items and underlying display items, further wherein the tokens are modified into smaller tokens by underlying display items depending on tokens found in an overlaying item.

Rumph et al disclose the method, wherein the display items are prioritized to define an arrangement of overlaying display items and underlying display items (column 35, lines 45-59), further wherein the tokens are modified into smaller tokens by underlying display items depending on tokens found in an overlaying item (column 27,lines 31-39).

Notredame et al, Powell, III, Houle, and Rumph et al are combinable because they are in the similar problem area of processing of encoded/decoded data.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the token modification as taught by Rumph et al in the system

of Notredame et al in view of Powell, III further in view of Houle to implement an efficient display item merging system.

The motivation to combine the reference is clear because by reducing the unnecessary underlying items memory can be saved.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Beniyam Menberu whose telephone number is (571) 272-7465. The examiner can normally be reached on 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly Williams can be reached on (571) 272-7471. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the customer service office whose telephone number is (571) 272-2600. The group receptionist number for TC 2600 is (571) 272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov/>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner

Beniyam Menberu

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03/04/2006

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